



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/059,157	01/31/2002	Norio Kubo	32739M070	6520
441	7590	06/23/2004	EXAMINER	
SMITH, GAMBRELL & RUSSELL, LLP 1850 M STREET, N.W., SUITE 800 WASHINGTON, DC 20036			RODEE, CHRISTOPHER D	
			ART UNIT	PAPER NUMBER
			1756	

DATE MAILED: 06/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/059,157

Applicant(s)

KUBO ET AL

Examiner

Christopher RoDee

Art Unit

1756

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 5/17/04.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) 9 and 10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 17 May 2004 has been entered.

Election/Restrictions

Newly submitted claims 9 and 10 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons:

The invention of claim 9 and the invention of claims 1-8 are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the invention of claim 9 does not require the specific volume percent of particles in the replenishment toner. The subcombination has separate utility such as use by itself as a developer of electrostatic or ionographic latent images.

The invention of claims 1-8 and the invention of claim 10 are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different

Art Unit: 1756

process of using that product (MPEP § 806.05(h)). In the instant case the product as claimed can be used in another and materially different process, such as developing an electrostatic latent image with the replenishment toner of claims 1-8 without the presence of another toner (.e., the initial toner) used in the process.

Because these inventions are distinct for the reasons given above and the search required for each invention is not required for the other inventions restriction for examination purposes as indicated is proper.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 9 and 10 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03. RCE practice also does not permit a shift in the elected invention as discussed in MPEP 819.

Claim Rejections - 35 USC § 112

Claims 1-8 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The instant replenishment toner claims have been amended to specify a magnetic permeability means "does not return to a developer unit a toner that remains on a photoconductive member after image transfer, the replenishment toner being fed to the developer unit when, as image formation proceeds, the magnetic permeability detecting means detects reduction of an initial toner contained in the developer originally loaded in the developer

Art Unit: 1756

unit." The amendment also specifies "the initial toner and the replenishment toner have different particle size distributions".

The Examiner has carefully reviewed the specification but is unable to find basis for either amendment. Applicants are requested to particularly point out where the specification as filed discloses each limitation recently added to the claims.

Claims 1-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The size distribution of the replenishment toner is now defined on the basis of the initial toner's size distributions. Because the size distribution of the initial toner is not present in the claims and because the size distribution of the replenishment toner is defined on the basis of the initial toner, the replenishment toner size distribution appears to include all possible distributions (the initial toner also includes all possible size distributions). Such a limitation does not particularly point out and distinctly claim applicant's invention because all possible distributions are included within the claims' scope.

Claim Rejections - 35 USC § 102

Claims 1-6 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Mikuriya *et al.* in US Patent 5,849,453.

The instant claims have been amended in the manner noted above in the rejection under section 112, first paragraph. Additionally, the claims have been amended to have a scope of protection with respect to the relevant particle diameters of 5.04 microns or smaller so that these characteristics are the same as presented in the claims of 17 April 2003. With respect to the

Art Unit: 1756

new language concerning the apparatus (i.e., "does not return to a developer unit..."), this is directed to the intended use of the replenishment toner in the apparatus and does not actually limit the toner itself. The composition and the structure of the toner are the same regardless of the manner in which the toner is used. No new patentable limitations are present in this language.

As far as the "different particle size distributions" limitation is concerned, this description does not impart a positive limitation to the claims because the initial toner is not part of the claimed invention, *per se*. Further, there is no definition in the claims of the characteristics of the initial toner's particle size distribution, other than that specified for the particles of 5.04 microns and smaller, which is already fully described in the claims. Because the size distribution of the initial toner is not present in the claims and because the size distribution of the replenishment toner is defined on the basis of the initial toner, the replenishment toner size distribution appears to include all possible distributions (the initial toner also includes all possible size distributions).

Example 2 is particularly pertinent to the invention as now claimed. The volume amount of toner having a size of 5.04 μm or smaller is 2.6 % noting Table 4. This toner also has a volume average particle size of between 8.00 and 10.08 μm noting that 50 % cumulative distribution of toner is obtained in this size range (again see Table 4).

The reference's 2.6 % of particles having a size of range of 5.04 μm or smaller meets the requirements of the instant claims because this volume falls within the range of the instant claims. Specifically for claim 1, the replenishment toner has 0.75 % ($0.5 \% \times 1.5$) to 5.25 % ($1.5 \% \times 3.5$) in the noted size range. The value of 2.6 % falls within the range of 0.75 % to 5.25 %. Similar analysis shows the reference to be applicable to the other rejected claims (e.g., claim 4

Art Unit: 1756

permits a range of 1.0 % to 3.75 %; claim 6 permits a range of 0.9 % to 3.5 %). Each rejected claim is anticipated by this portion of the reference.

Applicants' remarks are noted, but as discussed above the claims are directed only to the replenishment toner and are not limited by the newly submitted claim language. The claims do not specify any particular composition for the replenishment toner that is different from the art. The reference remains applicable to claim 3 because any disclosed toner in the reference could be considered to have the same size as an initial toner because the claims do not specify the characteristics of the initial toner.

Applicant's remarks in the recent submission concerning the initial toner, replenishment toner, and collected toner in Mikuriya are noted. However, the instant claims are directed to only a replenishment toner. The word "replenishment" does not appear to impart any compositional, size, or structural limitations on the toner other than those already present in body of the claim. Consequently, any toner in art (initial, replenishment, collected, etc.) that meets each of the specified limitations of the claims, which the applied art does, is applicable.

Mikuriya is applicable to the instant claims because it meets each of the claimed limitations. The rejection is proper for the reasons given herein for the claims as amended and newly presented.

Claims 1-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Sano *et al.* in US Patent 5,863,694.

Sano exemplifies toners in Table 1 (col. 9) having size characteristics that appear to inherently fall within the scope of the instant claims. Example 1 has a volume mean size of 9.1 μm with 2.0 volume % of particles having a size of 5 μm or smaller. Example 2 has a volume mean size of 8.2 μm with 2.3 volume % of particles having a size of 5 μm or smaller. Example 7

Art Unit: 1756

and Comparative Example 1 appear relevant to each of the above rejected claims.

Comparative Examples 6 and 8 also appear relevant to claims 1-3; Comparative Example 8 is also pertinent to claim 5. This toner is used as part of a two-component developer (Examples).

Although the reference does not specify the volume % of particles having sizes of 5.04 μm or smaller, it does specify the volume % of particles having size of 5 μm or smaller. Given the small difference in upper limit of toner particle size range (5 μm versus 5.04 μm) and the similar volume average particle diameters, which are substantially larger than the values of 5 μm and 5.04 μm (the upper limit of the reference's and invention's ranges – one would expect few particles in the range of 5.00 to 5.04 μm), there is sufficient reason to believe that the volume % of particles having sizes of 5.04 μm or smaller would be substantially the same as volume % of the references particles having sizes of 5 μm or smaller.

The above noted values fall within the scope of the instant claims, such as claim 1 having 0.75 % to 5.25 % of particles by volume with a size of 5.04 μm or smaller and claim 6 having 0.9 % to 3.5 % of particles by volume with a size of 5.04 μm or smaller.

The remarks above concerning the interpretation of the instant claims are pertinent to this rejection. Applicants are also reminded that the initial toner is not present in the claimed replenishment toner. Only one type of toner is actually present in the claims (i.e., the replenishment toner). Art showing a single type of toner having the size characteristics of the claims meets the requirements of all patentable limitations of the claims. The rejection is proper as presented.

Double Patenting

The previously applied double patenting rejection is withdrawn because the copending application has been abandoned.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher RoDee whose telephone number is 571-272-1388. The examiner can normally be reached on most weekdays from 6:00 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Huff can be reached on 571-272-1385. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

cdr
18 June 2004


CHRISTOPHER RODEE
PRIMARY EXAMINER